

# CDF/D0/AD Luminosity meeting

## Action Items

August 31 2004  
All

All

# Action Items

- ❖ D0 reported that their preliminary studies indicate that they could account for a significant part of the luminosity dependent component of the CDF/D0 ratio. They found baseline shifts  $\Delta L/L \sim L$  that have to do with the AC coupling of the PMTs used for the luminosity measurement. The RC time constant of the circuit was too long for the bunch spacing of 396 ns. They are trying to quantify the effect better and put a consistent picture together. They will discuss more as soon as they understand things better.

## Action Items -cont

- ❖ Preliminary studies indicate no strong correlations between the CDF/D0 ratio and various beam parameters like protons/bunch, pbars/bunch, proton and pbar bunch lengths, transverse emittances and lifetimes at Remove Halo. Will look at more quantities.
- ❖ Mike presented some interesting examples of the time evolution of the luminosity during a store considering crossing angles, offset centers and optical distortions (beams-doc-1348)

## Action Items -cont

- ❖ We are planning to document as much as possible of what we learned so far on the CDF/D0 luminosity ratio both from the experiments' and the AD side. Some of the work done is already documented in official notes. We are planning to provide an executive summary as well as a list of the various studies performed with pointers to the relevant documentation.

## Action Items -cont

- ❖ We will meet again when the D0 luminosity studies and cross checks are more complete.